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Claims

1. Single sideband mixer for high frequency signals with two double sideband mixers (3), each of which are wired with identical first signals and with second signals phase-shifted by 90° relative to each other, in order to form a product signal from the two signals, and an adder element (7) to superimpose the two product signals to an output signal with one sideband, characterized by the fact that an amplifier (1) to generate the first signal is connected upline of each mixer (3), and that the amplifiers (1) have inputs connected to the same signal source (5, 9) via a forked line (11).

2. Single sideband mixer according to Claim 1, characterized by the fact that the signal source is a preamplifier (9).

3. Single sideband mixer according to Claim 2, characterized by the fact that the first signal is a radio frequency signal and the second signal a local oscillator signal, and that a first 90° coupler (6) is connected to a local oscillator input (5) of the single sideband mixer to generate the second signals.

4. Single side band mixer according to Claim 1, characterized by the fact that the signal source is a signal input (5) of the single sideband mixer.

5. Single sideband mixer according to Claim 4, characterized by the fact that the first signal is a local oscillator signal and the second signal an intermediate frequency signal, and that a first 90° coupler (6) is connected to an intermediate frequency input (4) of the single sideband mixer to generate the second signals.

6. Single sideband mixer according to one of the preceding claims, characterized by the fact that a final amplifier (10) for the product signal is arranged between the output of the double sideband mixer (3) and the adder element (7).

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7. Single sideband mixer according to one of the preceding claims, characterized by the fact that the double sideband mixer (3), the amplifier (1), the adder element (7) and optionally the preamplifier (9), the first 90° coupler (6) or the final amplifier (10) are integrated on a single semiconductor substrate.

8. Single sideband mixer according to one of the preceding claims, characterized by the fact that the adder element is a second 90° coupler (7).

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